

Table of HIV MAbs

Table 2: p24

MAb ID	HXB2 Location	Author's Location	Sequence	Neutralizing	Immunogen	Species (Isotype)
35 3A6	p24(1–17)	p24(122–149 BH10)	TGHSSQVSQNYPIVQNIQGQM-VHQAIISP	no	HIV-1 infection	human(IgG1 κ)
	References: [Buchacher (1992), Buchacher (1994)] <ul style="list-style-type: none"> • 3A6: The reactive peptide spans the p17/p24 border of gag [Buchacher (1994)] • 3A6: Human MAbs against were generated by electrofusion of PBL from HIV-1 positive volunteers with CB-F7 cells [Buchacher (1994)] 					
36 111/182	p24(1–20)	p24(134–153 IIIB)	PIVQNIQGQM VHQAISPRTL	no	Vaccine	murine(IgG1)
	Vaccine: Vector/type: β -galactosidase fusion protein Strain: IIIB HIV component: p24 References: [Niedrig (1991)] <ul style="list-style-type: none"> • 111/182: Test of specific evidence of cross-reactivity between HIV-1, HIV-2 and SIV MAC [Niedrig (1991)] 					
37 112/021	p24(1–20)	p24(134–153 IIIB)	PIVQNIQGQM VHQAISPRTL	no	Vaccine	murine(IgG1)
	Vaccine: Vector/type: β -galactosidase fusion protein Strain: IIIB HIV component: p24 References: [Niedrig (1991)] <ul style="list-style-type: none"> • 112/021: Test of specific evidence of cross-reactivity between HIV-1, HIV-2 and SIV MAC [Niedrig (1991)] 					
38 112/047	p24(1–20)	p24(134–153 IIIB)	PIVQNIQGQM VHQAISPRTL	no	Vaccine	murine(IgG1)
	Vaccine: Vector/type: β -galactosidase fusion protein Strain: IIIB HIV component: p24 References: [Niedrig (1991)] <ul style="list-style-type: none"> • 112/047: Test of specific evidence of cross-reactivity between HIV-1, HIV-2 and SIV MAC [Niedrig (1991)] 					
39 ID8F6	p24(11–25)	p24(143–157 BRU)	VHQAIISPRTLNAWVK	no	Vaccine	murine(IgG1)
	Vaccine: Vector/type: inactivated virus Strain: CBL-1 HIV component: virus Donor: R. B. Ferns and R. S. Tedder References: [Ferns (1987), Ferns (1989)] <ul style="list-style-type: none"> • ID8F6: Reacted with both p55 and p24 – showed less than 75% homologous inhibition [Ferns (1987)] • ID8F6: UK Medical Research Council AIDS reagent: ARP348 					
40 F5-2	p24(14–23)	p24(14–23 HXB2)	AISPRTLNAW	no		murine()
	References: [Kusk (1988), Kusk (1992)] <ul style="list-style-type: none"> • F5-2: In HIV-1+ individuals, antibody to AISPRTLNAW is associated with increased rates of CD4 T-cell decline [Kusk (1988), Kusk (1992)] 					

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41	CB-13/5 (CB-mab-p24/13–15)	p24(21–25)	p24(152–156)	NAWVK	no	murine(IgG1 κ)
References: [Grunow (1990), Franke (1992), Kuttner (1992), Glaser & Hausdorff(1996)]						
42	polyclonal	p24(44–60)	p24(176–192 LAI)	SEGATPQDLNTMLNTVG	no	Vaccine
Vaccine: <i>Vector/type:</i> recombinant protein, virus-like particle <i>Strain:</i> LAI <i>HIV component:</i> p24, p17, p55 <i>Stimulatory Agents:</i> Freund's adjuvant						
References: [Truong (1997)]						
43	3D3	p24(45–50)	p24(177–182 LAI)	EGATPQ	Vaccine	murine(IgG2b)
Vaccine: <i>Vector/type:</i> inactivated virus <i>Strain:</i> CBL-1 <i>HIV component:</i> virus						
Donor: R. B. Ferns and R. S. Tedder						
References: [Ferns (1987), Ferns (1989)]						
44	CD-4/1 (CB-4/1/F6)	p24(46–56)	p24(182–197)	GATPQDLNTML	no	Vaccine
Vaccine: <i>Vector/type:</i> β -galactosidase fusion protein <i>HIV component:</i> p24						
References: [Grunow (1990), Franke (1992), Hohne (1993), Glaser & Hausdorff(1996), Ehrhard (1996)]						
<ul style="list-style-type: none"> • CD-4/1: Inhibits spread of HIV-1 in cell cultures [Franke (1992)] • CD-4/1: Affinity of CB-4/1 to native p24 is lower than to peptide or denatured p24 – proposed that the peptide binds in a loop conformation [Hohne (1993)] • CD-4/1: Unusual p24-MAb binding kinetics, with biphasic association – probably due to conformational changes in p24, not to p24 dimerization [Glaser & Hausdorff(1996)] • CD-4/1: Modification of p24 lysine residues by maleic anhydrid increased the affinity of CD-4/1, presumably due to conformational changes exposing a cryptic epitope [Ehrhard (1996)] 						

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45	15F8C7	p24(47–56)	p24(183–197)	ATPQDLNML	no	Vaccine	murine(IgG1)
Vaccine: Vector/type: purified HIV-1							
References: [Janvier (1990), Janvier1992]							
				• 15F8C7: Remapped to aa209–217 through Pepscan method – cross-reacts with HIV-2 [Janvier (1990)] – maps to aa203–217 through EIA pentadecapeptide [Janvier1992]			
46	111/052	p24(51–60)	p24(183–192 IIIB)	DLNTMLNTVG	no	Vaccine	murine(IgG1)
Vaccine: Vector/type: β -galactosidase fusion protein Strain: IIIB HIV component: p24							
References: [Niedrig (1991)]							
				• 111/052: Weak cross-reaction with HIV-2 on WB, otherwise not cross-reactive with HIV-2 or SIV MAC [Niedrig (1991)]			
47	polyclonal	p24(51–82)	Gag(183–214 LAI)	DLNTMLNTVGGHQAMQML-KETINEEAAEWDR	no	Vaccine	human(IgG)
Vaccine: Vector/type: lipopeptide Strain: LAI HIV component: p24 Stimulatory Agents: QS21							
References: [Pialoux (2001)]							
				• 28 subjects were vaccinated with six HIV-1 peptides that were selected to be particularly rich in CTL epitopes, presented in lipopeptides with or without adjuvant QS21 – HIV-specific Ab responses were detected in 25/28 (89%), proliferative in 19/28 (79%), and CTL in 13/24 (54%) of testable volunteers – only 4/28 had Ab responses to this peptide, G1, 4/28 had proliferative responses, and no patient had a CTL response [Pialoux (2001)]			
48	91-5	p24(64–75)	p24(196–207)	AAMQMLKETINE	no	HIV-1 infection	human(IgG1 λ)
References: [Gorny (1989), Tyler (1990), Robinson (1990b), Gorny (1998)]							
				• 91-5: Synthesized by immortalization of peripheral blood cells with Epstein-Barr virus [Gorny (1989)]			
				• 91-5: Did not enhance HIV-1 IIIB infection [Robinson (1990b)]			
				• 91-5: NIH AIDS Research and Reference Reagent Program: 1238			
49	1109/01	p24(69–86)	p24(201–218 BRU)	LKETINEEAAEWDRVHPV	no	Vaccine	murine(IgG)
Vaccine: Strain: IIIB HIV component: virus							
References: [Robert-Hebmann (1992b), Robert-Hebmann (1992a)]							
50	14D4E11	p24(69–86)	p24(201–218 BRU)	LKETINEEAAEWDRVHPV	no	Vaccine	murine(IgG1)
Vaccine: Vector/type: purified HIV-1							
References: [Janvier (1990), Robert-Hebmann (1992b), Robert-Hebmann (1992a), Janvier1992]							
				• 14D4E11: Mapped to aa209–217 through Pepscan method (original paper, AAEWDRVHP) – cross-reacts with HIV-2 [Janvier (1990)] and to aa203–217 through EIA pentadecapeptide [Janvier1992]			

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51	1G5C8	p24(69–86)	p24(201–218 BRU)	LKETINEAAEDRVHPV	no Vaccine	murine(IgG2b)
Vaccine:	Vector/type:	protein	HIV component:	p24		
	References:	[Janvier (1990), Robert-Hebmann (1992b), Robert-Hebmann (1992a), Janvier 1992]				
	•	1G5C8: Mapped to aa209–217 through Pepscan method (original paper, AAEWDRVHP) [Janvier (1990)] and to aa203–217 through EIA pentadecapeptide [Janvier 1992]				
52	47-2	p24(69–86)	p24(201–218 BRU)	LKETINEAAEDRVHPV	no Vaccine	murine(IgG)
Vaccine:	Strain:	BRU				
	References:	[Robert-Hebmann (1992b), Robert-Hebmann (1992a)]				
53	714/01	p24(69–86)	p24(201–218 BRU)	LKETINEAAEDRVHPV	no Vaccine	murine(IgG)
Vaccine:	Strain:	IIIB	HIV component:	virus		
	References:	[Robert-Hebmann (1992b), Robert-Hebmann (1992a)]				
54	polyclonal	p24(69–86)	p24(201–218 LAI)	LKETINEAAEDRVHPV	no Vaccine	mouse()
Vaccine:	Vector/type:	recombinant protein, virus-like particle	Strain:	LAI	HIV component:	p24, p17, p55 Stimulatory Agents: Freund's adjuvant
	References:	[Truong (1997)]				
	•	An ELISA assay was used to study a panel of Gag peptides – mature p24 CA epitopes mapped to residues 176–192, 201–218, 233–253, 285–304, and were recognized by antibodies elicited by rp24CA – one p17MA epitope, residues 11–25, and one p24CA epitope, residues 176–192, were recognized by antibodies raised against anti-p55 virus-like particles, suggesting different antigenic properties for p24CA and p17MA antibodies depending on whether they are produced against the mature soluble protein or the immature assembled form of the gag proteins [Truong (1997)]				
55	111/073	p24(71–81)	p24(203–213 IIIB)	ETINEAAEWD	no Vaccine	murine(IgG1)
Vaccine:	Vector/type:	β -galactosidase fusion protein	Strain:	IIIB	HIV component:	p24
	References:	[Niedrig (1991)]				
	•	111/073: cross-reactive between HIV-1, HIV-2 and SIV MAC by multiple assays [Niedrig (1991)]				
56	113/038	p24(71–81)	p24(203–213 IIIB)	ETINEAAEWD	no Vaccine	murine(IgG1)
Vaccine:	Vector/type:	β -galactosidase fusion protein	Strain:	IIIB	HIV component:	p24
	References:	[Niedrig (1991)]				
	•	113/038: cross-reactive between HIV-1, HIV-2 and SIV MAC by multiple assays [Niedrig (1991)]				
57	1-E-4	p24(71–85)	p24(203–217)	ETINEAAEDRVHP	no Vaccine	murine(IgG)
Vaccine:	Strain:	IIIB	HIV component:	virus		
	References:	[Niedrig (1989)]				
	•	1-E-4: One of nine MAbs that bind to this peptide [Niedrig (1989)]				

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58	1-E-9	p24(71–85)	p24(203–217)	ETINEAAEWDRVHP	no Vaccine	murine(IgG)
	Vaccine:	<i>Strain:</i> IIIB	<i>HIV component:</i> virus			
		References: [Niedrig (1989)]				
		• 1-E-9: One of nine MAbs that bind to this peptide [Niedrig (1989)]				
59	10-E-7	p24(71–85)	p24(203–217)	ETINEAAEWDRVHP	no Vaccine	murine(IgG1)
	Vaccine:	<i>Strain:</i> IIIB	<i>HIV component:</i> virus			
		References: [Niedrig (1988), Niedrig (1989)]				
		• 10-E-7: Cross-reactive between HIV-1, HIV-2 and SIV [Niedrig (1988)]				
		• 10-E-7: One of nine MAbs that bind to this peptide – cross-reactive with HIV-2 ROD and SIV MAC [Niedrig (1989)]				
60	10-G-9	p24(71–85)	p24(203–217)	ETINEAAEWDRVHP	no Vaccine	murine(IgG1)
	Vaccine:	<i>Strain:</i> IIIB	<i>HIV component:</i> virus			
		References: [Niedrig (1988), Niedrig (1989)]				
		• 10-G-9: HIV-1 specific [Niedrig (1988)]				
		• 10-G-9: One of nine MAbs that bind to this peptide [Niedrig (1989)]				
61	11-C-5	p24(71–85)	p24(203–217)	ETINEAAEWDRVHP	no Vaccine	murine(IgG1)
	Vaccine:	<i>Strain:</i> IIIB	<i>HIV component:</i> virus			
		References: [Niedrig (1988), Niedrig (1989)]				
		• 11-C-5: HIV-1 specific [Niedrig (1988)]				
		• 11-C-5: One of nine MAbs that bind to this peptide [Niedrig (1989)]				
62	2-E-4	p24(71–85)	p24(203–217)	ETINEAAEWDRVHP	no Vaccine	murine(IgG2a)
	Vaccine:	<i>Strain:</i> IIIB	<i>HIV component:</i> virus			
		References: [Niedrig (1988), Niedrig (1989)]				
		• 2-E-4: Cross-reactive between HIV-1, HIV-2 and SIV by ELISA, HIV-1 and HIV-2 by WB [Niedrig (1988)]				
		• 2-E-4: One of nine MAbs that bind to this peptide – cross-reactive with HIV-2 ROD [Niedrig (1989)]				
63	2-H-4	p24(71–85)	p24(203–217)	ETINEAAEWDRVHP	no Vaccine	murine(IgG1)
	Vaccine:	<i>Strain:</i> IIIB	<i>HIV component:</i> virus			
		References: [Niedrig (1988), Niedrig (1989)]				
		• 2-H-4: Cross-reactive between HIV-1, HIV-2 and SIV by ELISA, HIV-1 and HIV-2 by WB [Niedrig (1988)]				
		• 2-H-4: One of nine MAbs that bind to this peptide – cross-reactive with HIV-2 ROD [Niedrig (1989)]				
64	8-D-2	p24(71–85)	p24(203–217)	ETINEAAEWDRVHP	no Vaccine	murine(IgG2a)
	Vaccine:	<i>Strain:</i> IIIB	<i>HIV component:</i> virus			

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References: [Niedrig (1989), Robert-Hebmann (1992b), Robert-Hebmann (1992a)] <ul style="list-style-type: none"> • 8-D-2: HIV-1 specific [Niedrig (1988)] • 8-D-2: One of nine MAbs that bind to this peptide [Niedrig (1989)] 					
65	8-G-9	p24(71–85)	p24(203–217)	ETINEEAAEWDRVHP	no Vaccine murine(IgG)
Vaccine: Strain: IIIB HIV component: virus References: [Niedrig (1989)] <ul style="list-style-type: none"> • 8-G-9: One of nine MAbs that bind to this peptide [Niedrig (1989)] 					
66	8-H-7	p24(71–85)	p24(203–217)	ETINEEAAEWDRVHP	no Vaccine murine(IgG3)
Vaccine: Strain: IIIB HIV component: virus References: [Niedrig (1988), Niedrig (1989), Robert-Hebmann (1992b), Robert-Hebmann (1992a)] <ul style="list-style-type: none"> • 8-H-7: One of nine MAbs that bind to this peptide [Niedrig (1989)] 					
67	C5123	p24(71–85)	p24(203–217 HXB2)	ETINEEAAEWDRVHP	no Vaccine murine(IgG1 κ)
Vaccine: Vector/type: viral lysate HIV component: virus References: [Hinkula (1990)] <ul style="list-style-type: none"> • C5123: Epitope defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula (1990)] 					
68	1-B-7	p24(76–85)	p24(208–217 BH10)	EAAEWDRVHP	no Vaccine murine(IgG1)
Vaccine: Strain: IIIB References: [Niedrig (1988), Niedrig (1989)] <ul style="list-style-type: none"> • 1-B-7: Reacts with two overlapping peptides, region of overlap is given – reacted with HIV-2 and SIV MAC [Niedrig (1989)] 					
69	3-B-7	p24(76–85)	p24(208–217 BH10)	EAAEWDRVHP	no Vaccine murine(IgG1)
Vaccine: Strain: IIIB References: [Niedrig (1988), Niedrig (1989)] <ul style="list-style-type: none"> • 3-B-7: Reacts with two overlapping peptides, region of overlap is given – reacted with HIV-2 [Niedrig (1989)] 					
70	6-D-12	p24(76–85)	p24(208–217 BH10)	EAAEWDRVHP	no Vaccine murine(IgG1)
Vaccine: Strain: IIIB References: [Niedrig (1988), Niedrig (1989)] <ul style="list-style-type: none"> • 6-D-12: Reacts with two overlapping peptides, region of overlap is given – reacted with HIV-2 [Niedrig (1989)] 					
71	6-E-7	p24(76–85)	p24(208–217 BH10)	EAAEWDRVHP	no Vaccine murine(IgG1)
Vaccine: Strain: IIIB References: [Niedrig (1988), Niedrig (1989)] <ul style="list-style-type: none"> • 6-E-7: Reacts with two overlapping peptides, region of overlap is given – reacted with HIV-2 and SIV MAC [Niedrig (1989)] 					

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72	8-D-5	p24(76–85)	p24(208–217 BH10)	EAAEWDRVHP	no Vaccine	murine(IgG)
	Vaccine:	<i>Strain:</i> IIIB				
			References: [Niedrig (1988), Niedrig (1989)]			
			• 8-D-5: Reacts with two overlapping peptides, region of overlap is given – bound only HIV-1 [Niedrig (1989)]			
73	FF1	p24(76–90)	p24(208–222 HXB2)	EAAEWDRVHPVHAGP	no Vaccine	murine(IgG1 κ)
	Vaccine:	<i>Vector/type:</i> inactivated virus				
			References: [Hinkula (1990)]			
			• FF1: Epitope defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula (1990)]			
74	113/072	p24(81–90)	p24(213–222 IIIB)	DRVHPVHAGP	no Vaccine	murine(IgG1)
	Vaccine:	<i>Vector/type:</i> β -galactosidase fusion protein	<i>Strain:</i> IIIB	<i>HIV component:</i> p24		
			References: [Niedrig (1991)]			
			• 113/072: Weak cross-reaction with HIV-2 on WB, otherwise not cross-reactive with HIV-2 or SIV MAC [Niedrig (1991)]			
75	25.3	p24(82–102)	p24(82–102)	RVHPVHAGPIAPGQMREPRGS	no	murine(IgG1 κ)
			References: [Momany (1996)]			
			• 25.3: Crystal structure of the CA protein bound to Fab 25.3 was solved – monomers form 7 alpha-helices arranged in a coiled-coil – Fab binds to a long antigenic peptide that separates the longest helices, with a salt bridge at CA 82 R, and interactions as far away as positions 100 and 102 [Momany (1996)]			
76	13–102-100	p24(83–94)	p24(102–112 IIIB)	HPVHAGPIAPG		murine(IgG)
		Donor: Advanced Technologies, Inc., Columbia, MD				
		References: [Parker (1996), Qian & Tomer(1998)]				
		• 13–102-100: Binding site (HPVHAGPIAPG) defined by epitope footprinting – first binding p24 to MAb, then allowing proteolytic cleavage to cleave unprotected residues, then performing mass spectrometry to identify protected residues of epitope [Parker (1996)]				
		• 13–102-100: Affinity capillary electrophoresis was used to fine map this epitope, and the optimal peptide was defined as VHAGPI-APGIAP – this method uses migration time shifts to probe relative affinities of Abs – the antibody binds to the cyclophilin A binding domain [Qian & Tomer(1998)]				
77	RL4.72.1	p24(87–101)	p24(219–233 BRU)	HAGPIAPGQMREPRG	no Vaccine	murine(IgG)
	Vaccine:	<i>Vector/type:</i> inactivated virus	<i>Strain:</i> clade D strain NDK	<i>HIV component:</i> virus		
			References: [Tatsumi (1990), Robert-Hebmann (1992b), Robert-Hebmann (1992a)]			
			• RL4.72.1: Immunized with inactivated HIV NDK, D clade, reacts with B clade peptide [Robert-Hebmann (1992a)]			
78	polyclonal	p24(101–121)	p24(233–253 LAI)	GSDIAGTTSTLQEIQIGWMTNL	no Vaccine	mouse()
	Vaccine:	<i>Vector/type:</i> recombinant protein, virus-like particle	<i>Strain:</i> LAI	<i>HIV component:</i> p24, p17, p55	<i>Stimulatory Agents:</i> Freund's adjuvant	

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References: [Truong (1997)] <ul style="list-style-type: none"> An ELISA assay was used to study a panel of Gag peptides – mature p24 CA epitopes mapped to residues 176–192, 201–218, 233–253, 285–304, and were recognized by antibodies elicited by rp24CA – one p17MA epitope, residues 11–25, and one p24CA epitope, residues 176–192, were recognized by antibodies raised against anti-p55 virus-like particles, suggesting a different antigenic properties for p24CA and p17MA antibodies depending on whether they are produced against the mature soluble protein or the immature assembled form of the gag proteins [Truong (1997)] 					
79	406/01	p24(101–121)	p24(233–253 BRU)	GSDIAGTTSTLQEIQIGWMTNN	no Vaccine murine(IgG)
Vaccine: <i>Strain:</i> IIIB References: [Robert-Hebmann (1992b), Robert-Hebmann (1992a)]					
80	38:9.6K (38:96K)	p24(121–130)	p24(253–262 HXB2)	NPPIPVGEIY	no Vaccine murine(IgG1 κ)
Vaccine: <i>Vector/type:</i> recombinant protein <i>HIV component:</i> p24-p15 References: [Hinkula (1990)] <ul style="list-style-type: none"> 38:9.6K: Called 38:96K – epitope defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula (1990)] 38:9.6K: UK Medical Research Council AIDS reagent: ARP365 					
81	EB1A9	p24(121–135)	p24(253–267 LAI)	NPPIPVGEIYKRWII	Vaccine murine(IgG1)
Vaccine: <i>Vector/type:</i> inactivated virus <i>Strain:</i> CBL-1 <i>HIV component:</i> virus Donor: R. B. Ferns and R. S. Tedder References: [Ferns (1987), Ferns (1989)] <ul style="list-style-type: none"> EB1A9: Reacted with both p55 and p24 – showed less than 75% homologous inhibition [Ferns (1987)] EB1A9: UK Medical Research Council AIDS reagent: ARP345 					
82	polyclonal	p24(121–152)	Gag(253–284 LAI)	NPPIPVGEIYKRWIIILGLNKI- VRMYSPTSLID	no Vaccine human(IgG)
Vaccine: <i>Vector/type:</i> lipopeptide <i>Strain:</i> LAI <i>HIV component:</i> p24 <i>Stimulatory Agents:</i> QS21 References: [Pialoux (2001)] <ul style="list-style-type: none"> 28 subjects were vaccinated with six HIV-1 peptides that were selected to be particularly rich in CTL epitopes, presented in lipopeptides with or without adjuvant QS21 – HIV-specific Ab responses were detected in 25/28 (89%), proliferative in 19/28 (79%), and CTL in 13/24 (54%) of testable volunteers – 25/28 had Ab responses to this peptide, G2, 14/28 had proliferative responses, and CTL responses were detected [Pialoux (2001)] 					
83	30:3E5	p24(141–170)	p24(273–302 HXB2)	IVRMYSPTSLDIRQGPKEPF- RDYVDRFYK	Vaccine murine(IgG1 λ)
Vaccine: <i>Vector/type:</i> recombinant protein <i>HIV component:</i> p24-p15					

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84	EF7	p24(141–170)	p24(273–302 HXB2)	IVRMYSPTSILDIRQGPKEPF-RDYVDRFYK	Vaccine murine(IgG1 κ)
					Vaccine: Vector/type: recombinant protein <i>HIV component:</i> p24-p15 References: [Hinkula (1990), Lundin (1996)] <ul style="list-style-type: none">• EF7: Epitope defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula (1990)]• EF7: Included as a control [Lundin (1996)]• EF7: UK Medical Research Council AIDS reagent: ARP367
85	LH-104-E	p24(143–148)	p24(275–280 BRU)	RMYSPT	no Vaccine murine(IgG1 κ)
					Vaccine: Vector/type: peptide Strain: BRU References: [Haaheim (1991)] <ul style="list-style-type: none">• LH-104-E: Reacts with both p24 and p55 [Haaheim (1991)]• LH-104-E: UK Medical Research Council AIDS reagent: ARP319
86	1B2C12	p24(149–154)	p24(273–292 IIIB)	SILDIR	no Vaccine murine(IgG1)
					Vaccine: Vector/type: purified HIV-1 References: [Janvier (1990), Janvier1992] <ul style="list-style-type: none">• 1B2C12: Reacts with HIV-1 and HIV-2 – mapped to aa281–286 through Pepscan method [Janvier (1990)], and to aa273–292 through EIA pentadecapeptide method [Janvier1992]
87	LH-104-K	p24(149–154)	p24(281–286 BRU)	SILDIR	no Vaccine murine(IgG1 κ)
					Vaccine: Vector/type: peptide Strain: BRU References: [Haaheim (1991)] <ul style="list-style-type: none">• LH-104-K: Binds exclusively with p24 (not p55) [Haaheim (1991)]• LH-104-K: UK Medical Research Council AIDS reagent: ARP322
88	1.17.3	p24(152–172)	p24(152–172 SIVmac)	CVKQGPKEPFQSYVDRFYKSL	no Vaccine murine(IgG1)
					Vaccine: Vector/type: inactivated virus Strain: AGM TYO-7 <i>HIV component:</i> virus References: [Otteken (1992)] <ul style="list-style-type: none">• 1.17.3: Recognized an epitope present on HIV-2/SIVmac (MAC251/32H) and HIV-2smmH4, but not SIVagmTYO-1, HIV-1 IIIB or SIVmnd [Otteken (1992)]

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89	1A7	p24(152–172)	p24(152–172 SIVmac)	CVKQGPKEPFQSYVDRFYKSL	no Vaccine	murine(IgG1)
	Vaccine:	Vector/type:	inactivated virus	Strain: AGM TYO-7	HIV component: virus	
	References:	[Otteken (1992)]				
		<ul style="list-style-type: none"> • 1A7: Recognized an epitope present on HIV-2/SIVmac (MAC251/32H) and HIV-2smmH4, but not SIVagmTYO-1, HIV-1 IIIB or SIVmnd [Otteken (1992)] 				
90	1F6	p24(152–172)	p24(152–172 SIVmac)	CVKQGPKEPFQSYVDRFYKSL	no Vaccine	murine(IgG1)
	Vaccine:	Vector/type:	inactivated virus	Strain: AGM TYO-7	HIV component: virus	
	References:	[Otteken (1992)]				
		<ul style="list-style-type: none"> • 1F6: Recognized an epitope present on HIV-2/SIVmac (MAC251/32H) and HIV-2smmH4, but not SIVagmTYO-1, HIV-1 IIIB or SIVmnd [Otteken (1992)] 				
91	polyclonal	p24(153–172)	p24(285–304 LAI)	IRQGPKEPFRDYVDRFYKTL	no Vaccine	mouse()
	Vaccine:	Vector/type:	recombinant protein, virus-like particle	Strain: LAI	HIV component: p24, p17, p55	Stimulatory Agents: Freund's adjuvant
	References:	[Truong (1997)]				
		<ul style="list-style-type: none"> • An ELISA assay was used to study a panel of Gag peptides – mature p24 CA epitopes mapped to residues 176–192, 201–218, 233–253, 285–304, and were recognized by antibodies elicited by rp24CA – one p17MA epitope, residues 11–25, and one p24CA epitope, residues 176–192, were recognized by antibodies raised against anti-p55 virus-like particles, suggesting a different antigenic properties for p24CA and p17MA antibodies depending on whether they are produced against the mature soluble protein or the immature assembled form of the gag proteins [Truong (1997)] 				
92	23A5G4	p24(153–172)	p24(285–304 IIIB)	IRQGPKEPFRDYVDRFYKTL	no Vaccine	murine(IgG1)
	Vaccine:	Vector/type:	protein	HIV component: p24		
	References:	[Janvier (1990), Janvier1992, Janvier (1996)]				
		<ul style="list-style-type: none"> • 23A5G4: Mapped to aa209–217 through Pepscan method [Janvier (1990)] and to aa285–304 through EIA pentadecapeptide method [Janvier1992] • 23A5G4: A few sera which were able to bind the linear sequence 178–192, but not sequence 288–302 in an indirect peptide ELISA inhibited the binding of 23A5G4 to the native p24 [Janvier (1996)] 				
93	23A5G5	p24(153–172)	p24(285–304 BRU)	IRQGPKEPFRDYVDRFYKTL	no Vaccine	murine(IgG)
	Vaccine:	Vector/type:	protein	Strain: IIIB	HIV component: p24	
	References:	[Robert-Hebmann (1992b), Robert-Hebmann (1992a)]				

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94	3D10G6	p24(153–172)	p24(285–304 IIIB)	IRQGPKEPFRDYVDRFYKTL	no Vaccine	murine(IgG1)
	Vaccine:	Vector/type:	purified HIV-1			
		References:	[Janvier (1990), Janvier1992]			
			• 3D10G6: Epitope cross-reacts with HIV-1 and HIV-2 – mapped to aa260–267 through Pepscan method [Janvier (1990)] and to aa285–304 through EIA pentadecapeptide method [Janvier1992]			
95	F5-4	p24(153–175)	p24(153–174 HXB2)	IRQGPKEPFRDYVDRFYKTLR-AE	no	murine()
		References:	[Kusk (1988), Kusk (1992)]			
			• F5-4: Binds to a location in the most hydrophilic region of p24 [Kusk (1988), Kusk (1992)]			
96	MO9.42.2	p24(153–178)	p24(285–310 BRU)	IRQGPKEPFRDYVDRFYKTLR-AEQAS	no Vaccine	murine(IgG)
	Vaccine:	Vector/type:	virus	Strain: HIV2 ROD	HIV component:	virus
				References:	[Robert-Hebmann (1992b), Robert-Hebmann (1992a)]	
				• MO9.42.2: Reacts with HIV-1s, HIV-2s, and SIVs in rec protein ELISA [Robert-Hebmann (1992b)]		
97	MO9.50.2	p24(153–178)	p24(285–310 BRU)	IRQGPKEPFRDYVDRFYKTLR-AEQAS	no Vaccine	murine(IgG)
	Vaccine:	Strain:	HIV2 ROD			
		References:	[Robert-Hebmann (1992b), Robert-Hebmann (1992a)]			
			• MO9.50.2: Reacts with HIV-1s, HIV-2s, and SIVs in rec protein ELISA [Robert-Hebmann (1992b)]			
98	V10	p24(155–169)	p24(289–303 IIIB)	QGPKEPFRDYVDRFY	no virus	murine()
		References:	[Matsuo (1992)]			
			• V10: Reacts with HIV-1 and SIV AGM analogous peptides [Matsuo (1992)]			
99	V107	p24(155–177)	p24(289–311 IIIB)	QGPKEPFRDYVDRFYKTLRAE-QA	no virus	murine()
		References:	[Matsuo (1992)]			
			• V107: Reacts with FIV, HIV-1 and SIV AGM analogous peptides [Matsuo (1992)]			
100	12-B-4	p24(161–170)	p24(293–302 IIIB)	FRDYVDRFYK	no Vaccine	murine(IgG1)
	Vaccine:	Strain:	IIIB	HIV component:	virus	
		References:	[Niedrig (1988), Niedrig (1989)]			
			• 12-B-4: Epitope is defined as the overlap between two HIV-1 reactive peptides – cross-reacts with HIV-2 ROD and SIV MAC [Niedrig (1988), Niedrig (1989)]			

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101	C5122	p24(161–170)	p24(293–302 HXB2)	FRDYVDRFYK	no Vaccine	murine(IgG1 κ)
	Vaccine:	Vector/type: viral lysate	HIV component: virus			
		References: [Hinkula (1990)]				
		• C5122: Defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula (1990)]				
102	9A4C4	p24(170–188)	p24(303–317 IIIB)	KTLRAEQASQEVKNWMTET	no Vaccine	murine(IgG1)
	Vaccine:	Vector/type: protein	Strain: IIIB	HIV component: p24		
		References: [Janvier (1990), Janvier1992, Robert-Hebmann (1992b), Robert-Hebmann (1992a)]				
		• 9A4C4: Mapped to aa260–267 through Pepscan method [Janvier (1990)] – and to aa303–317 through EIA pentadecapeptide method [Janvier1992]				
103	11C10B10	p24(171–185)	p24(303–317 IIIB)	TLRAEQASQEVKNWM	no Vaccine	murine(IgG1)
	Vaccine:	Vector/type: protein	HIV component: p24			
		References: [Janvier (1990), Janvier1992]				
		• 11C10B10: Mapped to aa260–267 through Pepscan method [Janvier (1990)] and to aa303–317 through EIA pentadecapeptide method [Janvier1992]				
104	11D11F2	p24(171–185)	p24(303–317 IIIB)	TLRAEQASQEVKNWM	no Vaccine	murine(IgG1)
	Vaccine:	Vector/type: protein	HIV component: p24			
		References: [Janvier (1990), Janvier1992]				
		• 11D11F2: Mapped to aa260–267 through Pepscan method [Janvier (1990)] and to aa303–317 through EIA pentadecapeptide method [Janvier1992]				
105	CD12B4	p24(171–185)	p24(303–317 LAI)	TLRAEQASQEVKNWM	Vaccine	murine(IgG1)
	Vaccine:	Vector/type: inactivated virus	Strain: CBL-1	HIV component: virus		
		Donor: R. B. Ferns and R. S. Tedder				
		References: [Ferns (1987), Ferns (1989)]				
		• CD12B4: Reacted with both p55 and p24 – strain-specific binding [Ferns (1987)]				
		• CD12B4: UK Medical Research Council AIDS reagent: ARP346				
106	BE3	p24(176–190)	p24(308–322 HXB2)	QASQEVKNWMTETLL	no Vaccine	murine(IgG1 κ)
	Vaccine:	Vector/type: recombinant protein	HIV component: p24-p15			
		Donor: B. Wahren				
		References: [Hinkula (1990)]				
		• BE3: Defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula (1990)]				
		• BE3: UK Medical Research Council AIDS reagent: ARP368				

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107	L14	p24(176–190)	p24(308–322 HXB2)	QASQEVKNWMTETLL	no Vaccine	murine(IgG1 κ)
	Vaccine:	Vector/type: recombinant protein	HIV component: p24-p15			
	Donor:	B. Wahren				
	References:	[Hinkula (1990)]				
		• L14: Defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula (1990)]				
		• L14: UK Medical Research Council AIDS reagent: ARP369				
108	108/03	p24(181–190)	p24(313–322 IIIB)	VKNWMTETLL	no Vaccine	murine(IgG1)
	Vaccine:	Vector/type: β -galactosidase fusion protein	Strain: IIIB	HIV component: p24		
	References:	[Niedrig (1991)]				
		• 108/03: Cross-reactive between HIV-1, HIV-2 and SIV MAC by multiple tests [Niedrig (1991)]				
109	110/015	p24(181–190)	p24(313–322 IIIB)	VKNWMTETLL	no Vaccine	murine(IgG1)
	Vaccine:	Vector/type: β -galactosidase fusion protein	Strain: IIIB	HIV component: p24		
	References:	[Niedrig (1991)]				
		• 110/015: Cross-reactive between HIV-1, HIV-2 and SIV MAC by multiple tests [Niedrig (1991)]				
110	32:32K	p24(199–222)	p24(331–354 HXB2)	KTILKALGPAATLEEMMTACQ-GVG	Vaccine	murine(IgG1 λ)
	Vaccine:	Vector/type: recombinant protein	HIV component: p24-p15			
	References:	[Hinkula (1990)]				
		• 32:32K: Epitope defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula (1990)]				
		• 32:32K: UK Medical Research Council AIDS reagent: ARP368				
111	C5200	p24(199–222)	p24(331–354 HXB2)	KTILKALGPAATLEEMMTACQ-GVG	Vaccine	murine(IgG1 κ)
	Vaccine:	Vector/type: viral lysate				
	References:	[Hinkula (1990)]				
		• C5200: Epitope defined by peptide blocking of binding to native protein [Hinkula (1990)]				
112	FH2	p24(201–215)	p24(333–347 HXB2)	ILKALGPAATLEEMM	no Vaccine	murine(IgG1 κ)
	Vaccine:	Vector/type: recombinant protein	HIV component: p24-p15			
	References:	[Hinkula (1990)]				
		• FH2: Defined by peptide blocking of binding to native protein – WB reactive with p53 and p24 [Hinkula (1990)]				
113	13B5	p24(205–214)	p24(205–213)	LGPAATLEEM	Vaccine	murine()
	Vaccine:	Vector/type: recombinant protein	HIV component: p24			

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		Ab type: C-term Donor: bioMerieux			
		References: [Berthet-Colominas (1999)]			
		• 13B5: Fab bound to p24 capsid for crystallization and study of p24's structure [Berthet-Colominas (1999)]			
114	106/01	p24(211–230)	p24(343–362 IIIB)	LEEMMTACQGVGGPGHKARV	no Vaccine
		Vaccine: Vector/type: β -galactosidase fusion protein		Strain: IIIB	HIV component: p24
		References: [Niedrig (1991)]			
		• 106/01: Cross-reactive between HIV-1, HIV-2 and SIV MAC by multiple tests [Niedrig (1991)]			
115	LH-104-B	p24(225–230)	p24(357–362 BRU)	GHKARV	no Vaccine
		Vaccine: Vector/type: peptide		Strain: BRU	
		References: [Haaheim (1991)]			
		• LH-104-B: Binds exclusively with p55 (not p24), in contrast to LH-104-I [Haaheim (1991)]			
		• LH-104-B: UK Medical Research Council AIDS reagent: ARP308			
116	LH-104-I	p24(226–231)	p24(358–363 BRU)	HKARVL	no Vaccine
		Vaccine: Vector/type: peptide		Strain: BRU	
		References: [Haaheim (1991)]			
		• LH-104-I: Binds exclusively with p24 (not p55), in contrast to LH-104-B [Haaheim (1991)]			
		• LH-104-I: UK Medical Research Council AIDS reagent: ARP321			
117	polyclonal	p24()	p24()		no Vaccine
		Vaccine: Vector/type: recombinant protein		Strain: B subtype	HIV component: p24
		References: [Gupta (2001)]			
		• Gag p24 is the mostly widely used HIV protein for serological based diagnostic kits — phage display libraries of HIV-1 p24 identified 2 epitope-rich regions: 70% of the clones that were identified using immunized rabbit sera had DNA fragments from the N-terminal region spanning 150–240 of Gag, and 30% from the carboxy-terminal region of p24 containing amino acids 310–360 — subtype B and C comparisons were made [Gupta (2001)]			